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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,608	12/28/2005	Thomas Tiller	5776	9165
7055 7590 11/10/2010 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191				
EXAMINER ALEXANDER, LYLE				
ART UNIT 1773		PAPER NUMBER		
NOTIFICATION DATE 11/10/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

### Office Action Summary

**Application No.**

10/560,608

**Applicant(s)**

TILLER ET AL.

**Examiner**

LYLE A. ALEXANDER

**Art Unit**

1773

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 18, 21-23, 25-30, 32 and 34-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18, 21-23, 25-30, 32, 34-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18,21-23, 25-30,32,34-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is vague and indefinite as to what is intended by "standard seawater".

The Office acknowledges the original specification teaches on pages 6-7 the composition of "North Pacific seawater with a salinity of 3.5%" that was sampled in 2001 and is documented in the Encyclopedia of Ocean Science. It appears Applicant intends the contents of this seawater sample as the claimed "standard seawater". The Office maintains that one having ordinary skill in the art would not have interpreted the claimed "standard seawater" as that disclosed in the specification. The Office contends the different oceans have different concentrations of ions and in the light of rising ocean levels, the North Pacific seawater water referenced in the specification probably has different concentrations in the present year of 2010. Clarification could be achieved if Applicant were to specifically claim the ions and their concentration ranges.

Claim 1 also states " ... said at least one ion being non-toxic to human or animal ... ". Upon consulting table 1 on page 7 of the original specification, there are several ions listed that are very toxic, such as fluorine, chlorine and arsenic. It is not clear how these ions can meet the "non-toxic" requirement. Does Applicant intend to state the

concentration of the ion is non-toxic? Clarification could be achieved by stating the ions are at concentrations that are non-toxic to human or animal.

The claims require the marking composition ions to be at a concentration that is a factor of 3,5 or 8 times greater than the initial concentration. These claims are not clear because no initial concentration range is claimed and there are an infinite permutations that could meet these requirements. Clarification could be achieved if Applicant were to claim the specific initial concentration of the ion from Table 1 on page 7 of the original specification.

***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 18, 21-23, 25-30, 32, 36-37 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Rittenburg et al. (USP 5,942,444).

Rittenburg et al. et al. a method of marking a product to identify the authenticity of the product. Column 6 lines 10-11 teach tagging alcoholic beverages and perfumes. Column 3 lines 14-21 teach the claimed ions as taggents. Column 5 lines 27-50 teach the taggent in have a concentration of at least 2 fold, 5 fold or from 10 to 10,000 fold which have been read on the claimed factor of 3,5 and 8.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 18, 21-23, 25-30, 32, 34-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (USP 5,849,590).

Anderson et al. teach a method of tagging a material using cations of the rare elements that include the claimed cations nickel, cobalt, lithium, copper, cesium, etc. Column 3 lines 4-7 teach the concentration of the tag is from 1-100,000 ppm and column 6 lines 20-21 teach the tag in concentration range of 1-100 ppm which encompasses the claimed range of "below 50 ppm." Column 3 lines 23+ teach the tagging agents are added to the material in the form of a solution. Column 1 lines 58-66 teach sea water is a good composition to be used as a taggant. Anderson teach in column 4 lines 35-59 the tagging materials can be carbon-13, fluorine-19, oxygen-18, oxygen-19, ammonium bromide and iron-57. Column 5 lines 51-60 teach the tag can be identified using MS, NMR or GC which have been read on the claimed methods of analysis. Columns 7 lines 59-61 teach "... the rare earth elements in the tagging agents are either not normally detectable at all in the composition being tagged or are detectable at extremely low levels" which has been read on the claimed "... by at least a factor of ..." (e.g. if the naturally occurring concentration of the tag in the material is undetectable, then the tag in the taught concentration range of 1-100 ppm would meet the instant claims).

Anderson is silent to tagging alcoholic beverages and perfumes.

It is well settled the simple substitution of one known element for another to obtain predictable results is within the skill of the art. Anderson teaches a well known method for the determination of the origin of a product. It is desirable to determine the

origin or authenticity of other liquids that are susceptible to adulteration, such as alcoholic beverages and perfumes. It would have been within the skill of the art to use a known method of tagging, such as that taught by Anderson, to tag other materials, such as alcoholic beverages or perfumes, to achieve the well known and expected results of determining the origin or authenticity of the material.

***Response to Arguments***

1. Applicant's arguments filed 10/8/09 have been fully considered but they are not persuasive.
2. Applicant states the Office agreed the language "standard seawater" would be interpreted in light of the specification. However, upon reconsideration, the Office has made new 35 USC 112 second paragraph rejections above directed to the claimed "standard seawater".
3. Applicants state Anderson does not teach tagging the claimed alcoholic beverages or perfumes and it would not have been obvious to modify Anderson to arrive at the claimed invention. Applicant states on page 14 the rejections of record do not establish that one having ordinary skill in the art would have identified the claimed tagging agents in an alcoholic beverage or perfume. The Office maintains Anderson teaches the claimed tagging agents, but does not specifically teach tagging alcoholic beverages or perfumes. In the absence of a showing of unexpected results, the Office maintains the rationale of record in the 35 USC 103 rejections are proper.
4. Applicant argues Anderson does not teach using "seawater" as the source of tagging ions. One having ordinary skill in the art would not have expected that specific

ions, such as calcium, fluorine, sodium, etc., derived from seawater would have different characteristics from those same ions derived from other sources.

5. Applicant argues the 35 USC 103 rejection is improper because there is no "documentary evidence with respect to any type of tagging in either alcoholic beverages or perfumes." The Office maintains the rationale used in the above 35 USC 103 rejection is consistent with KSR and is proper.

6. Applicants state Anderson does not teach the claimed "ion selected from the ions contained in standard sea water". Applicants' disclosure on page 7 of their original disclosure that sea water contains many ions, such as carbon, chlorine, fluorine, oxygen, sodium, magnesium sulfur, calcium and bromine. Anderson teaches in column 4 lines 35-59 the tagging materials can be carbon-13, fluorine-19, oxygen-18, oxygen-19, ammonium bromide and iron-57. These taught tagging substances are found in seawater and have been properly read on the instant claims.

7. Applicants state Anderson does not teach "wherein the concentration level of said at least one ion ... by at least a factor of 3 ...". Anderson teaches the claimed concentration range of less than 50 ppm and would inherently meet this limitation because no concentration ranges are provided. For the sake of argument, even if new language were crafted to overcome the 35 USC 112 second paragraph issues above and more clearly claim the "factor of 3", it would have been within the skill of the art as optimization of a result effective variable (In re Boesch 205 USPQ 215).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LYLE A. ALEXANDER whose telephone number is (571)272-1254. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lyle A Alexander/  
Primary Examiner, Art Unit 1797